

1. An automated intra-oral dental device, comprising:

a housing adapted to be positioned over one or more teeth, the housing having
a movable dental head adapted to access different areas of the one
or more teeth;

5 one or more cameras to capture images of the one or more teeth;

one or more dental instruments coupled to the dental head to
operate on the one or more teeth; and

a conduit to remove debris generated during an operation; and

a computer having a display to provide images captured by the camera and an
10 input device responsive to a user input during the operation.

2. The device of claim 1, further comprising a fluid source and a fluid conduit operatively
connected between said fluid source and the head

3. The device of claim 2, wherein the fluid source is either air or water.

15 4. The device of claim 1, wherein the one or more dental instruments include a burr, a
scaler, a scraper, a pick, or a drill.

5. The device of claim 4, wherein the dental instruments are interchangeable.

6. The device of claim 1, further comprising one or more light sources.

7. The device of claim 1, wherein the dental instruments are actuated independently of each other.

8. The device of claim 1, further comprising a motor to move the dental head.

9. The device of claim 1, further comprising a motor to tilt the dental instruments.

5 10. The device of claim 1, wherein the input device comprises a joystick to maneuver the head and a button to activate the dental instrument.

11. A method for using a dental device including a housing adapted to be positioned over one or more teeth, the housing having a movable dental head adapted to access different
10 areas of the one or more teeth; one or more cameras to capture images of the one or more teeth; one or more dental instruments coupled to the dental head to operate on the one or more teeth; and a conduit to remove debris generated during an operation, the method comprising:

displaying images captured by the camera on a screen;
15 receiving an input device responsive to a user command during the operation; and
moving the dental head in response to the user command; and
actuating the dental instruments in accordance with the user command.

12. The method of claim 11, further comprising a fluid source and a fluid conduit
operatively connected between said fluid source and the head
13. The method of claim 12, wherein the fluid source is either air or water.
14. The method of claim 11, wherein the one or more dental instruments include a burr, a
5 scaler, a scraper, a pick, or a drill.
15. The method of claim 14, wherein the dental instruments are interchangeable.
16. The method of claim 11, further comprising one or more light sources.
17. The method of claim 11, wherein the dental instruments are actuated independently of
each other.
- 10 18. The method of claim 1, further comprising a motor to move the dental head.
19. The method of claim 1, further comprising a motor to tilt the dental instruments.
20. The method of claim 1, wherein the input device comprises a joystick to maneuver
the head and a button to activate the dental instrument.